

insulator/dielectric layer, a shielding layer, a second insulator/dielectric layer, and an antenna whip. In addition, the reference does say that the core may include a coating of conductive material. However, the reference does not teach or suggest any electrically conductive coil having a first end electrically coupled to an elongated electrical conductor and a second end electrically coupled to a separate electrically conductive layer. Thus, the reference fails to teach or suggest an impedance-matching circuit as claimed in claims 1, 2 and 7-9. For at least this reason, withdrawal of the rejection of these claims is respectfully solicited.

It is also worth pointing out that dependent claim 2 teaches an additional specific feature that is neither taught nor suggested by the Lardo reference. Specifically, dependent claim 2 recites a dielectric layer disposed between the elongated electrical conductor and the shield layer, as well as a second dielectric layer disposed between the shield layer and the first electrically conductive layer. The sections of the Lardo reference cited by the Examiner disclose a core-insulator-shielding-insulator configuration. Thus, the reference does teach an insulator outside the core but does not teach a second insulator layer positioned between the shielding layer and an additional electrically conductive layer. It is respectfully submitted that dependent claim 2 is in allowable form for this additional reason.

2. Claims 10, 13-16 and 18-21

On page 3 of the Office Action, the Examiner rejects claims 10, 13-16 and 18-21 specifically in view of column 4, lines 10-40 and column 14, lines 6-36 of the Lardo reference. These rejected claims all recite a cylindrical inner wall formed of an expandable electrically conductive material and separated from a cylindrical outer wall by a compressable dielectric material. The cylindrical outer wall is also claimed as being formed of an electrically conductive material. As claimed,

varying the pressure in the lumen changes the spacing between the inner and outer walls, thereby changing the capacitance between the inner and outer wall.

It is first pointed out that neither the passages cited by the Examiner nor any of the rest of the Lardo reference teach or suggest a cylindrical inner wall defining a lumen and formed of an expandable electrically conductive material. There seems to be no teaching at all of any similar lumen. Further, the reference fails to teach or suggest a configuration of materials that enables changes in capacitance between conductive layers based on pressure-actuated spacing adjustments. For at least these reasons, the cited reference fails to teach or suggest the features of claims 10, 13-16 and 18-21. Accordingly, withdrawal of the rejection is respectfully solicited.

It is also worth pointing out that at least dependent claims 13-15 recite additional specific features that are neither taught nor suggested by the Lardo reference. Claim 13 recites a specific compressable dielectric material. Claim 14 recites a specific material configuration. Claim 15 recites a specific coil configuration similar to subject matter included in independent claim 1. Neither the passages cited by the Examiner nor the remainder of the Lardo reference teach or suggest these additional features. Accordingly, it is respectfully submitted that these dependent claims are in allowable form for these additional reasons.

3. Claims 3-5, 22, 25-27 and 29

Also on page 3 of the Office Action, the Examiner specifically rejects claims 3-5, 22, 25-27 and 29 based on column 4, lines 10-40 and column 12, lines 41-46 of the Lardo reference.

It is first pointed out that claims 3-5 are dependent upon independent claim 1 and are believed to be in allowable form at least for the same reasons discussed above in relation to that

independent claim. Further, claims 3-5 recite specific device configurations that are simply neither taught nor suggested by the Lardo reference. Claim 3 recites a second electrically conductive layer that is electrically coupled both to the elongated electrical conductor and to the first end of the coil.

Further, a third dielectric layer is claimed. Column 12, lines 41-66 describe a helical coil 208 positioned on top of a linear whip antenna 106, wherein there may or may not be a connection there between. However, there is no description or suggestion of the particular connection scheme described in claim 3. Dependent claim 4 adds a further limitation to claim 3. Dependent claim 5 recites a layered configuration including a third dielectric layer, which is neither included in, or suggested by, the Lardo reference. For all of these reasons, withdrawal of the rejection of claims 3-5 is respectfully solicited.

Claims 22, 25 and 26 recite a device that includes a specific configuration of layered materials. In addition, the claimed device includes first and second electrical shorts coupling specific layers to one another. In addition, a non-electrically-conductive gap is claimed in one of the layers. These elements are simply taught neither by the passages cited by the Examiner nor by any other portion of the Lardo reference. Thus, withdrawal of the rejection of claims 22, 25 and 26 is respectfully solicited.

Claims 27 and 29 recite a device that includes a specific configuration of layered materials. Also claimed are first and second electrical shorts coupling specific layers. A non-electrically-conductive gap is also claimed. These elements are simply neither taught nor suggested by the cited passages nor any other portion of the Lardo reference. Thus, withdrawal of the rejection of claims 27 and 29 is respectfully solicited.

4. Claims 6, 24 and 30-38

On page 3 through the top of page 4 of the Office Action, the Examiner rejects claims 6, 24 and 30-38 in light of three specific passages from the Lardo reference.

Claim 6 depends on independent claim 1 and is believed to be in allowable form at least for the reasons discussed above in relation to that independent claim. Similarly, claim 24 is dependent on independent claim 22 and is believed to be in allowable form at least for the same reasons discussed above in relation to that independent claim. In addition, it is respectfully submitted that claims 6 and 24 recite circuit configurations that are neither taught nor suggested by any portion of the Lardo reference. The passages cited by the Examiner simply do not contain such subject matter. Thus, withdrawal of the rejection of claims 6 and 24 is respectfully solicited.

Claims 30-32 recite a device having an antenna that is essentially connected to an elongate shaft and to at least one of a first and second elongate conductors. It is respectfully submitted that neither the passages cited by the Examiner nor any other portion of the Lardo reference teaches such a configuration. Thus, withdrawal of the rejection of claims 30-32 is respectfully solicited.

Claims 34-38 recite a device that includes a braid disposed on at least a portion of an elongate member. The braid includes a strand that forms part of an electrical circuit including a transmission line and an antenna. It is respectfully submitted that neither the portion cited by the Examiner nor any other portion of the Lardo reference teaches or suggests such a circuit. Thus, withdrawal of the rejection of claims 6 and 24 is respectfully solicited.

B. The Second Rejection

On page 4 of the Office Action, the Examiner rejects claims 11, 12, 17, 23 and 28 under 35 U.S.C. §103(a) as being unpatentable over the Lardo reference and further in view of U.S. Patent No. 5,109,859 to Jenkins (hereinafter referred to as "the Jenkins reference"). For at least all of the reasons discussed above in relation to independent claims 10, 22 and 27, it is respectfully submitted that claims 11, 12, 17, 23 and 28 are patentable in view of the Lardo and Jenkins references, considered independently or in combination. The Jenkins reference simply does not remedy the failure of Lardo to teach or suggest the elements of these dependent claims.

C. Summary

In summary, it is respectfully submitted that the Lardo and Jenkins references, considered independently or in combination, simply do not teach or suggest the features of claims 1-38. Accordingly, reconsideration and allowance of claims 1-38 are respectfully solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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